


## CERTIFICATE OF ANALYSIS

Date: 19-06-2025

Product Name	(+) -Nalbuphine		
Chemical Name	(4S,4aR,7R,7aS,12bR)-3-(Cyclobutylmethyl)-1,2,3,4,5,6,7,7a-octahydro-4aH-4,12-methanobenzofuro[3,2-e]isoquinoline-4a,7,9-triol		
Structure			
Batch. No.	-	CAS No.	1240373-02-7
Analysis Date	-	Retest Date	1
Mol. Formula	C <sub>21</sub> H <sub>27</sub> NO <sub>4</sub>	Molecular Wt.	357.5
Long term Storage Condition	Store at 2-8 °C in well closed container		
Handling and Transit Condition	25-30 °C in well closed container		

Test	Result
Appearance	-
Solubility	-
<sup>1</sup> H-NMR	Conforms to structure
MASS	Conforms to structure
Chromatographic Purity	>90%
<b>Note: This material should be used for research purpose and not for human or animal consumption. Any patent applicable for this product in any country is not applicable for this analytical standard/research chemical.</b>	

	Prepared By	Checked By	Approved By
Signature			
Date			

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